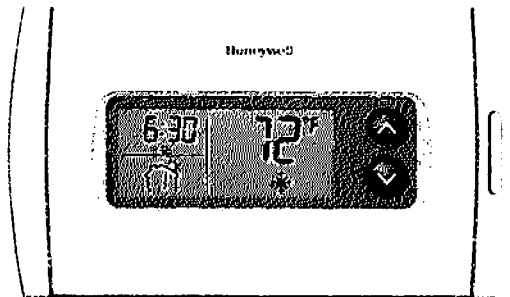


Honeywell

Operating Manual



RTH2310

Programmable Thermostat



69-2229ES-2



CAUTION: EQUIPMENT DAMAGE HAZARD

To prevent possible compressor damage, do not use Cooling mode when the outdoor temperature is below 50 °F (10 °C).

Need Help?

For assistance with this product please visit <http://DIYthermostats.honeywell.com>
or call Honeywell Customer Care toll-free at **1-800-468-1502**.

Read and save these instructions.

® U.S. Registered Trademark. Patents pending.
© 2008 Honeywell International Inc. All rights reserved.

Table of contents

About your new thermostat

Thermostat features	2
Early Start	3
Compressor protection	3
Quick reference to controls	4
Quick reference to display	5
Quick start	6

Programming & Operation

Set the clock	7
Select system setting (Heat/Cool)	8
Select fan setting (Auto/On)	9
Using the schedule	10-13
Temporary schedule override	14
Permanent schedule override	15

Appendices

Filter replacement	16
Battery replacement	17
In case of difficulty	18
Customer assistance	19
Limited warranty	20

**Your new thermostat is pre-programmed
and ready to go!
See page 6 for quick start.**

About your new thermostat

Your new Honeywell thermostat has been designed to give you many years of reliable service and easy-to-use, push-button climate control.

Features

- **Backlit display is easy to read**
- **Displays ambient (measured) temperature at all times**
- **One-touch access to setpoint temperature**
- **Energy Star[®] compliant to greatly reduce your heating/cooling expenses**
- **Separate programmable weekday/weekend schedules (5+2 day programming)**
- **Temporary and permanent override of schedule**
- **Early Start ensures right temperature at the right time**
- **Built-in compressor protection**

Early Start

Early Start allows the thermostat to “learn” how long your furnace or air conditioner takes to reach the set temperature. Simply program the desired times and desired temperatures into the schedule. The thermostat will determine when to activate heating or cooling so that the desired temperature is attained at the desired time.

Example: If you set the Wake time to 6 a.m. and the temperature to 70 °F (21 °C), the heat will come on before the set time, so the temperature is 70 °F (21 °C) by the time you wake at 6 a.m.

Built-in compressor protection

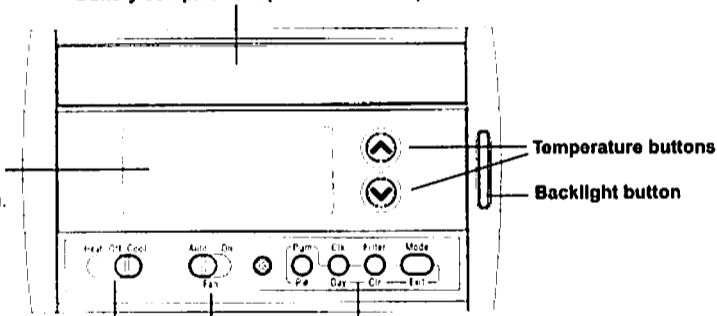
Your thermostat has a feature that helps prevent damage to the compressor of your air conditioning. Because damage can occur if the compressor is restarted too soon after shutdown, this feature forces the compressor to wait 5 minutes before restarting. During the wait time, ❄️ flashes on the screen. When the safe wait time has elapsed, the icon stops flashing and the compressor turns on.

Quick reference to controls

Battery compartment (for 2 AA batteries)

Screen

Lit for 12 seconds when you press the backlight button or any other button.



Temperature buttons

Backlight button

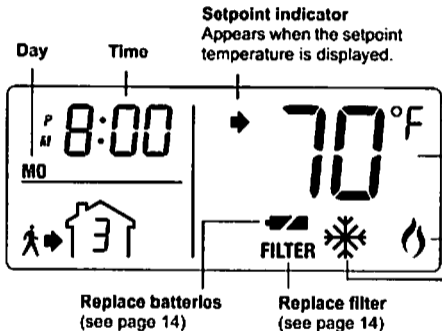
System switch
(see page 8)

Fan Switch
(see page 9)

Programming buttons
(see pages 12 & 13)

Quick reference to display screen

Current period number
Appears when the thermostat is following the schedule (see temporary override on page 14 and permanent override on page 15)



Setpoint indicator
Appears when the setpoint temperature is displayed.

Temperature
The ambient (measured) temperature is normally displayed. To view the setpoint temperature, press or once. The setpoint temperature will appear for 5 seconds.

* ❄️ flashes when the compressor protection is engaged (see page 3).

This thermostat is ready to go







Simply perform the three steps below and the thermostat is in operation:

- 1** Set the clock..... See page 7
- 2** Select whether to heat or cool..... See page 8
- 3** Select whether to keep the fan on continuously or only when needed See page 9

Your thermostat is pre-programmed with Energy Star[®] settings (see page 11). If you do not wish to use these settings, you can:

- ▶ Modify the schedule and temperature setpoints..... See page 12
- ▶ Temporarily override the temperature setpoint..... See page 14
- ▶ Permanently override the temperature setpoint See page 15

Set the clock

- ① Press Clk. The hour will flash.
- ② Press  or  to set the hour.
- ③ Press Clk. The minutes will flash.
- ④ Press  or  to set the minutes.
- ⑤ Press Clk. The day will flash.
- ⑥ Press  or  to set the day.
- ⑦ Press Exit.



Time and day display



Press to start time and day setting



Press to set the time or the day



Press to end time and day setting



NOTE: The time display flashes when the clock has lost its settings

Select the system setting



Use the **System** switch to place the system in one of the following modes:

- **Heat:** System is in Heating mode.
- **Off:** System is off.
- **Cool:** System is in Cooling mode.

NOTE: When you place the thermostat in Cooling mode, you might need to wait up to five minutes before cooling can start. This is a safety feature for the compressor. ❄ will flash on the screen until cooling starts.



CAUTION: EQUIPMENT DAMAGE HAZARD

Do not use Cooling mode when the outdoor temperature is below 50 °F (10 °C).

Select the fan setting







Use the Fan switch to select the fan mode of operation.

- Auto** • The fan runs only when heating or cooling is activated. However, if you have a gas or fuel oil furnace, when heating is activated, the fan will start only when the air coming out of the vents is warm enough. The fan will keep on running after heating stops until the air is no longer warm enough.
- On** The fan is always running. Use this setting for improved air circulation or for more efficient air cleaning.

NOTE: *The Fan switch is not used if the fan is not connected to the thermostat.*

Save money by using the schedule

The thermostat automatically adjust its temperature setpoint according to the programmed schedule. You can program up to four periods per day, with different settings for weekdays and weekends. For example, you can program all four periods for the weekdays but only two periods (Wake and Sleep) for the weekends.

	Wake	Set the time you wake up and the temperature you want in the morning until you leave (usually a comfortable level).
	Leave	Set the time you leave home and the temperature you want while you are away (usually an economical level).
	Return	Set the time you return home and the temperature you want during the evening until bedtime (usually a comfortable level).
	Sleep	Set the time you go to bed and the temperature you want overnight (usually an economical level).

To program a period, you need to set its start time and its two temperature settings (one when the thermostat is in cooling mode and another one when it is in heating mode).

Energy Star® settings

The thermostat is preset with Energy Star® settings. These settings can reduce your energy bills by 33%. See the next page if you wish to modify the settings.

Period	Weekdays			Weekends		
	Start time	Heat	Cool	Start time	Heat	Cool
Wake	6:00 am	70 °F (21 °C)	78 °F (25.5 °C)	6:00 am	70 °F (21 °C)	78 °F (25.5 °C)
Leave	8:00 am	62 °F (16.5 °C)	85 °F (29.5 °C)	--	--	--
Return	6:00 pm	70 °F (21 °C)	78 °F (25.5 °C)	--	--	--
Sleep	10:00 pm	62 °F (16.5 °C)	82 °F (28 °C)	10:00 pm	62 °F (16.5 °C)	82 °F (28 °C)

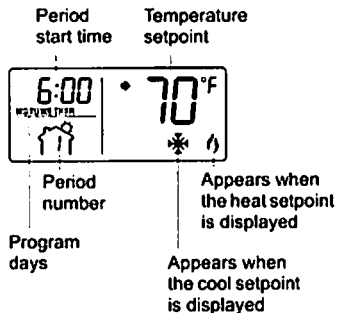
To modify the schedule

- 1 Press **Pgm**. The settings for period 1 for Monday through Friday are displayed.
- 2 Press **Day** to switch between **MO TU WE TH FR** (Monday through Friday) and **SA SU** (Saturday and Sunday).







NOTE: Press **Day** for 3 seconds to select all 7 days.

- 3 To select another period, press **P#** until the desired period number is displayed.

NOTE: To skip the displayed period, press **Clr**. For example, periods 2 and 3 have been skipped for Saturday and Sunday in the default schedule.



To modify the schedule (cont'd)

- 4 While the time display is flashing, press  or  to set the time (in increments of 15 minutes).
- 5 Press P#.
- 6 While the temperature display is flashing, place the **System** switch on **Heat** and press  or  to set the heat temperature. Place the **System** switch on **Cool** and press  or  to set the cool temperature.
- 7 Repeat steps 2 to 6 to set another period.
- 8 Press Exit.

P#



P#

Press to start programming
or to select another period



P#

Press to select the days



Press to set the time
or the temperature



Place on Heat when setting
the heat setpoint or on Cool
when setting the cool setpoint



P#



P#



Press to erase (skip) the
displayed period





Exit

Press to end programming

Temporary override of schedule

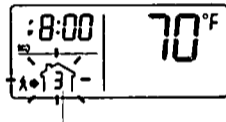
To temporarily override the schedule, press  or  until the desired temperature is displayed. The period number will flash to indicate that the current period has been overridden. The new temperature will be used for the next 2 hours.

NOTE: Pressing  or  once will display the setpoint temperature. To change the setpoint temperature, press either button more than once.

Press the **Mode** button if you wish to cancel the temporary setting.





Press to set the temperature



The period number flashes when the schedule is temporarily overridden

Permanent override of schedule

To permanently override the schedule, press the **Mode** button so that the period number disappears. Press  or  to manually set the temperature.

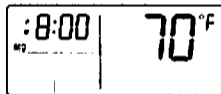
Press the **Mode** button again if you wish to cancel the override and resume the schedule. The current period number will appear and the thermostat will be set to the temperature programmed for that period.



Press to permanently override the schedule or to cancel the override



Press to set the temperature



The period number disappears when the schedule is permanently overridden

Filter replacement

After 500 hours of heating or cooling time, an icon appears to indicate that the filter needs replacement. Once the filter is replaced, press the **Filter** button for 3 seconds to remove the icon and reset the counter.



Battery replacement



*Set the **System** switch to **Off** before removing the batteries. Otherwise, the heating/cooling system might remain activated even when batteries are removed.*



Install two fresh AA batteries when the low-battery icon flashes on the screen. The icon will flash for 120 days, then the thermostat will cut power to the heating/cooling unit. The icon disappears once the batteries are replaced.



Replace batteries once a year or before leaving home for more than a month.

After replacing the batteries, set the time and the day (see page 7). The other settings are not erased when the thermostat is without power.

In case of difficulty

Screen is blank.

Temperature settings cannot be changed.

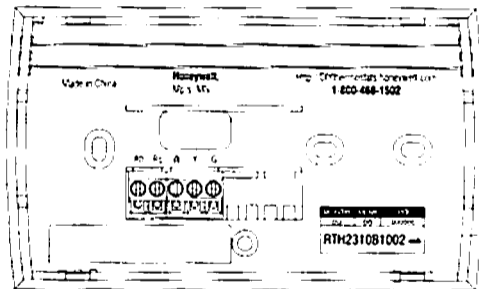
✱ is flashing.

HI appears on the screen.

LO appears on the screen.

- Ensure two fresh AA alkaline batteries are correctly installed.
- You are setting the temperature outside its allowable range:
 - Heat: 41 °F to 82 °F (5 °C to 28 °C)
 - Cool: 59 °F to 95 °F (15 °C to 35 °C)
- The compressor protection delay is underway. Wait for the delay to end (maximum of 5 minutes).
- The ambient (measured) temperature is above 122 °F (50 °C).
- The ambient (measured) temperature is below 23 °F (-5 °C).

Customer assistance



For assistance with this product,
please visit
<http://DIYthermostats.honeywell.com>.

Or call Honeywell Customer Care
toll-free at
1-800-468-1502.

To save time, please note your model
number and date code before calling.

1-year limited warranty

Honeywell warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of one (1) year from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, Honeywell shall repair or replace it (at Honeywell's option).

If the product is defective,

- (i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or
- (ii) call Honeywell Customer Care at 1-800-468-1502. Customer Care will make the determination whether the product should be returned to the following address: Honeywell Return Goods, Dock 4 MN10-3860, 1885 Douglas Dr. N., Golden Valley, MN 55422, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Honeywell that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer. Honeywell's sole responsibility shall be to repair or replace the product within the terms stated above. **HONEYWELL SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY HONEYWELL MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE ONE-YEAR DURATION OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you have any questions concerning this warranty, please write Honeywell Customer Relations, 1985 Douglas Dr, Golden Valley, MN 55422 or call 1-800-468-1502. In Canada, write Retail Products ON15-02H, Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Scarborough, Ontario M1V4Z9.

Honeywell



DO NOT RETURN TO STORE!
CALL 1-800-468-1502.

If you have installation questions or other product questions, contact us toll-free at 1-800-468-1502.

® U.S. Registered Trademark.
© 2008 Honeywell International Inc.
69-2223EFS— 06-08



69-2223EFS